

What is claimed is:

1. A heatsink, comprising:
  - a heat spreading base;
  - a first heat transfer device coupled to a first portion of the heat spreading base, the first heat transfer device having a first heat conduction rate; and
  - a second heat transfer device coupled to a second portion of the heat spreading base, the second heat transfer device having a second heat conduction rate different from the first heat conduction rate.
2. The heatsink of claim 1, wherein the heat spreading base includes a vapor chamber base.
3. The heatsink of claim 1, wherein the first heat transfer device includes a number of parallel plate fins.
4. The heatsink of claim 1, wherein the second heat transfer device includes a thermoelectric device.
5. The heatsink of claim 4, wherein the second heat transfer device includes a number of parallel plate fins coupled to the thermoelectric device.
6. The heatsink of claim 1, wherein the heat spreading base is positioned to align with a fluid flow path, wherein the first heat transfer device is located upstream, and the second heat transfer device is located downstream.
7. The heatsink of claim 6, wherein the fluid flow includes an airflow.
8. A heatsink, comprising:
  - a vapor chamber base;

a first number of heat transfer structures coupled to a first portion of the vapor chamber base;

a thermoelectric cooler coupled to a second portion of the vapor chamber base; and

a second number of heat transfer structures coupled to the thermoelectric cooler.

9. The heatsink of claim 8, wherein the first number of heat transfer structures includes a first number of parallel plate fins.

10. The heatsink of claim 8, wherein the second number of heat transfer structures includes a second number of parallel plate fins.

11. A processor assembly, comprising:

a processor chip;

a heatsink coupled to the processor chip, including:

a heat spreading base;

a first heat transfer device coupled to a first portion of the heat spreading base, the first heat transfer device having a first heat conduction rate; and

a second heat transfer device coupled to a second portion of the heat spreading base, the second heat transfer device having a second heat conduction rate higher than the first heat conduction rate.

12. The processor assembly of claim 11, wherein the heat spreading base includes a vapor chamber base.

13. The processor assembly of claim 11, wherein the first heat transfer device includes a number of parallel plate fins.

14. The processor assembly of claim 11, wherein the second heat transfer device includes a thermoelectric device.
15. The processor assembly of claim 14, wherein the second heat transfer device includes a number of parallel plate fins coupled to the thermoelectric device.
16. An information handling system, comprising:  
a heatsink coupled to at least one logic chip, the heatsink including:  
a heat spreading base;  
a first heat transfer device coupled to a first portion of the heat spreading base, the first heat transfer device having a first heat conduction rate;  
a second heat transfer device coupled to a second portion of the heat spreading base, the second heat transfer device having a second heat conduction rate higher than the first heat conduction rate; and  
a synchronous dynamic random access memory in communication with the logic chip.
17. The information handling system of claim 16, wherein the at least one logic chip includes a processor chip.
18. The information handling system of claim 16, wherein the synchronous dynamic random access memory includes a dual data rate memory.
19. A method of cooling an electronic device, comprising:  
conducting heat from the electronic device into a heat spreading base;  
conducting an first amount of heat from the heat spreading base into a first heat transfer device;  
conducting a second amount of heat greater than the first amount of heat from the heat spreading base into a second heat transfer device; and

passing a fluid across the first heat transfer device, then across the second heat transfer device.

20. The method of claim 19, wherein conducting heat from the electronic device into a heat spreading base includes conducting heat from the electronic device into a vapor chamber base.

21. The method of claim 19, wherein conducting a second amount of heat greater than the first amount of heat includes conducting a second amount of heat using an active heat transfer device.

22. The method of claim 21, wherein conducting a second amount of heat using an active heat transfer device includes conducting a second amount of heat using a thermoelectric device.

23. The method of claim 19, wherein passing a fluid across the first heat transfer device, then across the second heat transfer device includes passing air across the first heat transfer device, then across the second heat transfer device.